

### ***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 2, 13, and 19-40 are pending in the application, with claims 2, 19, 23, 29, and 38 being the independent claims. Claims 19 and 23 are sought to be amended. Claims 1, 3-12, and 14-18 were previously canceled without prejudice to or disclaimer of the subject matter therein. New claims 29-40 are sought to be added. Applicants reserve the right to prosecute similar or broader claims, with respect to the canceled and amended claims, in the future. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

### ***Allowable Subject Matter***

Applicants thank the Examiner for indicating on page 10 of the Office Action that claims 2, 13, and 26 were allowed over the cited references.

Applicants acknowledge Examiner's statements of Reasons for Allowance of the above-referenced patent application and agree that the claimed subject matter is patentable. However, Applicants take no position regarding the Reasons for Allowance presented by the Examiner other than the positions Applicants may have previously taken during prosecution. Therefore, the Examiner's Reasons for Allowance should not be attributed to Applicants as an indication of the basis for Applicants' belief that the claims are patentable. Furthermore, Applicants respectfully assert that there may also be additional reasons for patentability of the

claimed subject matter not explicitly stated in this record and Applicants do not waive its rights to such arguments by not further addressing such reasons herein.

***Rejection under 35 U.S.C. § 112***

Claims 19-25, 27, and 28 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully traverse this rejection.

Without acquiescing to the propriety of the rejection, Applicants have clarified claims 19 and 23. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection for claims 19-25, 27, and 28.

***Rejections under 35 U.S.C. § 103***

**Claims 19-22 and 27**

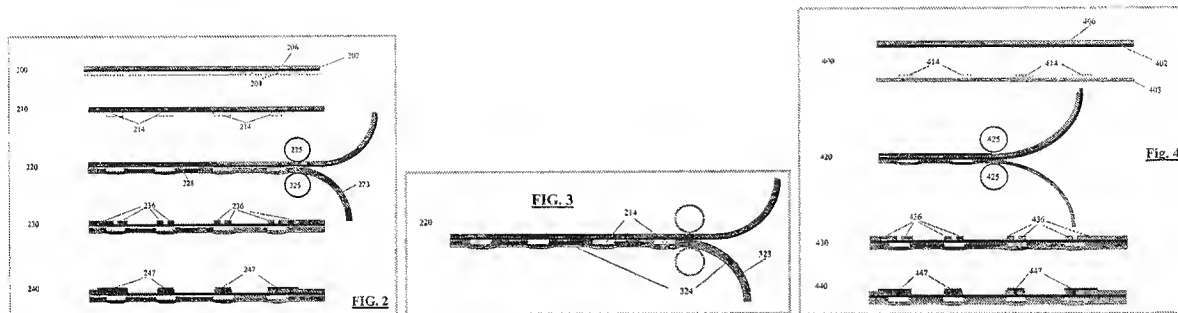
Claims 19-22 and 27 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Published Patent Application 2004/0126935 to Zhang et al. (“Zhang”) in view of International Publication No. WO 03/056640 to Mizusaki et al. (“Mizusaki”), and in further view of U.S. Patent No. 6,740,900 to Hirai (“Hirai”). Applicants respectfully traverse this rejection.

Amended claim 19 recites, *inter alia*,

a third electrode in a hole in the substrate, wherein the third electrode has a third thickness, and wherein the ***third electrode is positioned entirely within the separation between the first electrode and the second electrode***[.]

(emphasis added)

Applicants submit that none of Zhang, Mizusaki, and Hirai<sup>1</sup>, whether taken alone or in combination, disclose, teach, or suggest, a third electrode that is “*positioned entirely within the separation between the first electrode and the second electrode[.]*” as recited in claim 19. The Examiner points to Figs. 2-4 (shown below) of Zhang to allegedly disclose this feature.



The Examiner states that these three figures show a third electrode (214/414) positioned within the separation between the first (236/436) and second (236/436) electrodes. Without acquiescing to the propriety of the Examiner’s rejection, Applicants have amended claim 19 to recite “wherein the third electrode is positioned *entirely within the separation between* the first electrode and the second electrode[.]” Applicants submit that the Examiner alleged third electrode (214/414) of Zhang is not positioned, as recited, *entirely* within the separation of the first and second electrode. Rather, it appears from the figures of Zhang that the third electrode (214/414) *overlaps* the first and second electrode. There is nothing in Zhang to teach or suggest that the third electrode (214/414) is “*positioned entirely within the separation between the first electrode and the second electrode[.]*” as recited in claim 19. Thus, Zhang does not teach or suggest at least this distinguishing feature.

<sup>1</sup> Applicants also disagree that the Examiner has properly applied *In re Boesch* and *In re Aller*, as discussed, respectively, at pages 4 and 5 of the Office Action, as the recited features do not properly fall within the facts and rationale of *In re Boesch* and *In re Aller*.

On pages 3-4 of the Office Action the Examiner states, which Applicants do not acquiesce to, that Mizusaki teaches “an organic transistor with the channel length being on the nanometer scale such as 1-20 nm, and as such the distance between the first and second electrodes being 1-20 nm.” (See, Mizusaki page 51, lines 5-8 and 12-13). However, Mizusaki is not used by the Examiner to disclose, nor does Mizusaki disclose, at least the above-noted distinguishing features of claim 19. Therefore, Mizusaki cannot be used to cure the deficiencies of Zhang.

On pages 4-5 of the Office Action the Examiner states, which Applicants do not acquiesce to, that Hirai teaches “a bottom gate transistor with a sealing layer on the organic semiconductor” and “that the first electrode is 200 nm thick and the sealing layer is 5 microns and that they (i.e., first/second electrodes) protrude all of the way through the sealing layer thickness of 5 microns.” (See, Hirai Figs. 1, 2, and 6, elements 3 and 4, and col. 18, lines 25 and 44-45). However, Hirai is not used by the Examiner to disclose, nor does Hirai disclose, at least the above-noted distinguishing features of claim 19. Therefore, Hirai cannot be used to cure the deficiencies of Zhang or Mizusaki.

Thus, the applied references cannot be used to establish a *prima facie* case of obviousness for claim 19.

Further, claims 20-22 and 27 are dependent from claim 19, and should be considered patentable at least for the same reasons as claim 19, as well as for their additional respective features.

Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 103(a) rejection and allow claims 19-22 and 27 to pass to allowance.

**Claims 23-25 and 28**

Claims 23-25 and 28 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Zhang, in view of Mizusaki, in further view of Hirai, and in still further view of *J. Poly. Sci.*, Part B: Poly. Phys., Vol. 34 to Higuchi, H. (“Higuchi”). Applicants respectfully traverse this rejection.

Similar to claim 19, above, amended claim 23 recites, *inter alia*,

a third electrode in a hole in the substrate, wherein *the third electrode* has a third thickness and *is positioned entirely between the first electrode and the second electrode*[.]

(emphasis added)

As discussed above with reference to at least the above-noted distinguishing feature recited in claim 19, there is nothing in Zhang, Mizusaki, or Hirai, whether taken alone or in combination, to teach or suggest that the third electrode (214/414) is “*positioned entirely between the first electrode and the second electrode*” as recited in claim 23. Thus, Zhang, Mizusaki, and Hirai do not teach or suggest at least this distinguishing feature.

On page 9 of the Office Action the Examiner states, which Applicants do not acquiesce to, that Higuchi “evidences that polycarbonate is a glass, which is a glass that is different than SiO<sub>2</sub>.” However, Higuchi is not used by the Examiner to disclose, nor does Higuchi disclose, at least the above-noted distinguishing features of claim 23. Therefore, Higuchi cannot be used to cure the deficiencies of Zhang, Mizusaki, and Hirai.

***New Claims***

New claims 29-40 recite features that distinguish over the cited references. For example, claims 29 and 38 recite at least “a transparent organic semiconductor,” “a transparent insulator,” or “wherein ..., the organic semiconductor, and the insulator are

transparent.” The applied references do not appear to disclose, teach, or suggest at least these features of claims 29 and 38.

### ***Conclusion***

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Date: June 22, 2010

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